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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/667,102

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Gaku Takano

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6389

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7590

06/17/2004

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EXAMINER

CHOOBIN, BARRY

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/667,102

Applicant(s)

TAKANO ET AL.

Examiner

Barry Choobin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on March 30, 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-22 is/are allowed.
- 6) ☒ Claim(s) 1-16,23-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings (replacement sheet containing Fig.12) were received on March 30, 2004. These drawings are approved.

Response to Arguments

2. Applicant's arguments see page 10-11, filed March 30, 2004, with respect to the rejection(s) of claim(s) 1-8, 10-16, 23-24 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hata et al (US 6,404,932), Divakaran et al and Maeda.
3. The indicated allowability of claims 9, 21-22 is withdrawn in view of the newly discovered reference(s) to Hata et al (US 6,404,932), and Maeda. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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As to claim 9, in lines 5 and 7 of claim 9, claim language is indefinite. Claim recites "after next by a...". Claim fails to define what is referring to as being "next".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 4, 6, 8, 10, 12, 14, 15, 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hata et al (US 4,955,061).

As to claims 1, 8, 10, 23, Hata et al disclose an image processing apparatus comprising: extraction means for setting, when a plurality of still image data of successive original images of the same format have been input (column 1, lines 39-46), one of the plural still image data as reference image data (Fig.15, wherein REFERENCE BINARY IMAGE corresponds to one of the plural still image), and extracting respective image correlation information of the plural still image data including the reference image data (in Fig.15, MOTION ESTIMATING MEANS 1506, corresponds to correlation information extracting); encoding means for encoding the image correlation information extracted by the extraction means into encoded data (Fig.15, the ENNTROPY ENCODING MEANS)

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and output means for outputting the encoded data encoded by the encoding means and the reference image data (Fig.15, ENCODED DATA).

As to claim 2, Hata et al disclose an image processing apparatus according to claim 1 (see claim 1), wherein said plural still image data are a plurality of digital still image data (a binary moving image is a plurality of still images, see column 1, lines 39-54).

As to claim 3, Hata et al disclose an image processing apparatus according to claim 1 (see claim 1) and using an exclusive OR.

As to claim 4, Hata et al disclose exclusive oring or pixel values of pixel position associated with preceding image and subsequent image (column 4, lines 18-29).

Claims 6, 14, 24 are similar to claim 1, with an addition limitation reciting image restoration be decoding. This limitation is disclosed in Hata (refer to Fig.46).

As to claim 12 and 15, Hata et al disclose first decoding and second decoding means are decoding means of same structure (Fig.53).

As to claim 21, said claim is similarly analyzed and rejected as claim 1, with an addition limitation as to code conversion means converting gray codes to original image, refer for example to Fig.37, and column 30, lines 37-66.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5, 7, 11, 13, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hata et al in view of Divakaran et al (US 2003/0026340).

As to claims 5, 7, 11, 13, 16 Hata et al disclose the limitation of claim 1 (see claim 1).

But Hata et al is silence about encoding means compresses the plural image correlation information by run-length encoding.

On the other hand, Divakaran et al disclose a method for describing activity in a video sequence comprising; encoding means compresses the plural image correlation information by run-length encoding (page 2, 0017).

Hata and Divakaran are combinable because they are from same field of endeavor being encoding and decoding video sequence.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide the encoding means compresses the plural image correlation information by run-length encoding as thought by Divakaran to modify

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Hata et al in order to use the number of run lengths to identify the first inter coded frame (0017).

The suggestion/motivation for doing so would have been to improve the accuracy of the activity of a given video sequence or shot (page 2, 0021).

Therefore, it would have been obvious to combine Divakaran and Hata.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hata et al in view of Maeda (US 6,512,793).

As to claim 22, Hata et al disclose claim 21 limitation (see claim 21 above), However Hata is silence about using Hoffman code decoding means.

But on the other hand, Maeda discloses a data processing apparatus and method comprising; Hoffman code decoding means (Fig.55) to reduce the code length by

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eliminating high frequency components of the object and re-encoding the data (column 39, lines 34-56).

Hata and Maeda are combinable because they are in similar field of endeavor (coding and decoding in image object).

Therefore, it would have been obvious to provide Hoffman code decoding means of Maeda with Hata in order to decode all the image objects even if the number of decoders is limited (column 4, lines 40-45).

Allowable Subject Matter

Claims 17 – 20 are allowed.

CONTACT INFORMATION

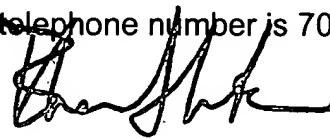
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Barry choobin

June 9, 2004



BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
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